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resistive heating of said fibers, said body being capable of expanding and returning to an original form, and electrical cable lines connecting the electrically conductive fibers in the generally cylindrical body to an electrical energy source for providing electrical energy to the electrically conductive fibers to resistively heat the electrically conductive fibers.

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3. (Twice Amended) The inflatable heating device of claim 1 wherein said fibers are carbon fibers.

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21. (Amended) An inflatable heating device comprising:

a generally cylindrical body having an inner surface and an outer surface, said body comprising a thermoset resin matrix and a plurality of carbon fibers embedded within said matrix, said carbon fibers being arranged helically and positioned at an angle of ±45° with respect to the longitudinal axis of said body, said matrix being cured to a stable elastomeric state by electrical resistive heating of said carbon fibers, said body being capable of expanding and returning to an original form, and electrical cable lines connecting the carbon fibers in the generally cylindrical body to an electrical energy source for providing electrical energy to the carbon fibers to resistively heat the carbon fibers.

Please delete claim 17 without prejudice to reinstate.

Please add the following new claim 22:

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22. (New) A system for in-situ repair of a conduit, comprising:

an apparatus including an elastomeric composite having a first end and a second end, wherein the composite includes a non-ferrous heating element disposed within a thermoset resin matrix;

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a first end piece fixedly attached to the first end of the composite and having an air port for communication with a compressed air source, a vacuum port for communication with a vacuum supply source and at least one electrical cable port for communication with a power supply source;

a second end piece fixedly attached to the second end of the composite, wherein

the composite, the first end piece, and the second end piece form an inflation chamber; and,

a pre-preg removably attached to an outer surface of the composite of the apparatus, the pre-preg including a structural fiber matrix supporting a heat curable resin.

23. (New) A method for in-situ repair of a conduit comprising:

providing a generally cylindrical body having an inner surface and an outer surface, said body containing a flexible elastomeric matrix and a plurality of nonmetallic conductive fibers arranged helically about said body so as to expand and contract and contract with the application of air pressure and vacuum pressure to said inner surface of said body;

providing an electrical power source connected to said fibers;

resistively heating said fibers by the electrical power source to cure the elastomeric matrix of the cylindrical body;

providing a pre-preg removably attached to an outer surface of said body; and,

resistively heating said fibers by the electrical power source to cure the pre-preg.

24. (New) The method of claim 23 further comprising:

providing a controller to monitor and vary the temperature of the fibers.

25. (New) The method of claim 24 further comprising:

monitoring and varying the temperature of said fibers to achieve a uniform cure in the pre-preg.